



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

November 22, 1982

Mr. Leroy Fyock  
Chevron Phosphate  
Manila Star Route  
Vernal, Utah 84078

RE: Permitting Bonanza Operations  
American Gilsonite  
ACT/047/009  
ACT/047/010  
ACT/047/011  
Uintah County, Utah

Dear Mr. Fyock:

I would like to thank you and Rich Carlbert for the time spent affording the Division staff an inside look at the gilsonite mining operations. We were particularly impressed with your positive approach to finalizing the permitting situation. As we promised, this letter is a summary of our impressions and recommendations for your record.

1. As we found during our tour, particularly along the newly constructed roadway to sites B-50 and B-52, topsoil, at least surficial material supportive of plant growth, does exist on the property. The current practice of either declaring that the material does not exist or not maintaining stockpiles must not continue. A commitment should be made by American Gilsonite to safeguard topsoil material from erosion via either stockpiling at minesites or construction of berms which will not be disturbed. In either case re-seeding of the material should take place.

Current operations are generally conducted on pads consisting mostly of the original, unsalvaged, topsoil. No stockpiled topsoil is available for these areas. This is due to the pre-law nature of the operation in some areas, but in other locations (i.e. I-24) it is a non-compliance situation.

Surficial material may not exist in as great a quantity everywhere as that which we observed along the roadway, however an attempt to preserve what is there should be made. In addition, in areas where good depth of topsoil is noticeable i.e. greater than one foot, it may be to the advantage of the operator to borrow some of this material for use during reclamation in areas which do not have preserved stockpiles.

Difficulty in reclamation of these areas may be expected due to: 1) lack of organic matter; 2) lack of soil nutrients; 3) compaction and 4) lack of a viable soil microflora and microfauna community. It is strongly recommended that the operator, in conjunction with the Division, design and implement revegetation test plots in these areas intended to identify the treatment(s) required to allow successful reclamation. This approach will demonstrate reclamation capability in the absence of stockpiled topsoil.



Also, in the vicinity of I-24, embankments sloping down to the old workings showed obvious erosion problems. These areas should be stabilized through grading and revegetation activities as soon as possible.

2. The bracing used in support of the surface pillars and in conjunction with the thickness of gilsonite left, appears from what was observed, to be substantial enough to satisfy the Division's concerns. Periodic inspections to detect deterioration of these pillars should be continued.

3. The ore storage pond area adjacent to the materials storage area should be specifically addressed in terms of a scheduled plan for reclamation.

4. The plant facilities we observed in operation appeared in good order, however the older structures, a drying plant and pulverizing plant should be incorporated into a scheduled plan for reclamation or rehabilitation.

5. It was unfortunate to notice the significant disturbance and waste of topsoil at the E-21 land fill site. An alternate cover material should be found (e.g. processed oil shale) and incorporated into the reclamation plan should it become necessary to continue covering the refuse on a near-daily basis. Attempts should be made to locally restrict the fire in the vein and monitor the cavitation of the southern wall periodically. Reseeding of the stripped area should be accomplished. A copy of the State Health approved landfill application should be forwarded to the Division.

Division representatives noted that material which has been bulldozed into piles exists near the site of the fire. This material should be identified. Further, plans should be generated and employees instructed to use these materials in the future to assist in fire control rather than topsoil. Topsoil loss in this manner is a violation of Rule M-10(14). The rationale that its use in fire control was justified to preclude safety hazard and property damage does not hold up when piles of previously disturbed material exists in close proximity to the disposal site.

6. The appearance of several holding ponds for discharges and settling of gilsonite fines is one of a good idea executed in an inadequate manner. For example, sites E-14 and E-24 should be enlarged to handle storm overflows. Larger containment berms are suggested for not only these ponds, but others that were visited that appear quite eroded.



Letter to L. Fyock  
ACT/047/009  
November 22, 1982  
Page Three

7. The subject of discharges not within the EPA specified limits at sites E-15 and E-30 should be dealt with swiftly. The high pH, high sulphur content, and warm water may appear more spectacular than disastrous but never-the-less ought to be managed more satisfactorily. The E-30 discharge may be improved after impoundment.

8. Continued use of waste rock, overburden, or cap rock is encouraged at sites similiar to B-40 and B-42 to fill in cuts, trenches, veins, landfills or subsidence impacted areas.

9. Reclaimed areas such as those observed at the drill site near the Little Emma vein and the easternmost area visited on the Wagonhound vein (where the vein had been closed successfully) were in very good condition and results are applauded.

Other areas in partial states of reclamation, e.g. the closed vein east of WH-11, LE-3, and LE-4 sites ought to be completed.

10. The pumphouse near WH-12 appears to serve no useful purpose and a recommendation is given to dismatle it or this cost will need to be incorporated into the bond.

11. The apparent haphazard construction of test pits and unused drill sites on the Wagonhound vein should be remedied, vis-a-vis reclaimed, and additional developments more carefully planned with future operations terminated in a more environmentally acceptable manner.

12. Covered haulage vehicles should be inspected for locations where gilsonite fines could escape. Spillages were observed on November 11, 1982 and may be adding to the operator's costs on longer hauls or bulk shipments.

13. The abandoned covered reservoir east of the highway should either be removed or incorporated into the facilities location map and reclamation cost estimate.

14. The pump houses and well gathering system has been managed in good order, the plans for future water appropriation should be forwarded to the Division when they are developed.

15. The revised property designation map discussed on site should be amended with existing sites cross-referenced to a corresponding table of descriptions, acreages and reclamation cost estimates. This should be submitted as part of the current mining and reclamation plan.



Letter to L. Fyock  
ACT/047/009  
November 22, 1982  
Page Four

The detailed reclamation cost estimate should be submitted on the enclosed forms and must be accompanied by a decision as to the form of surety preferred.

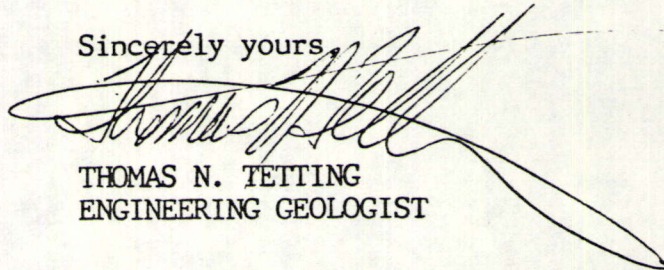
16. A detailed finding of the vegetative cover analysis performed by the Division on site will be forthcoming. Discussion of the continued use of "natural succession" will be included as will suggestions for a reseeding mixture.

It is the hope of the Division to finalize the review of the operations as soon as possible. Understanding the nature of the task at hand, the date of March 1, 1983 has been applied as a goal for American Gilsonite to have a final submittal in to the Division for review. It will then be possible to approach the Board of Oil, Gas and Mining for finalization of the form and amount of surety and to issue tentative approval for the Bonanza Operations. Final approval will be contingent upon a thirty (30) day publication period and the advent of no substantial objections.

Further work may be necessary in the future to consolidate the three separate mine plans, Bonanza, Wagonhound and Little Emma, and the various resubmittals into one concise document which could be termed a "Mining and Reclamation Plan". Until that time, a very unwieldy collection of both pertinent and outdated maps and narratives will exist on file.

Please feel free to contact me with any questions regarding the completion of this review.

Sincerely yours,



THOMAS N. TETTING  
ENGINEERING GEOLOGIST

TNT/tck  
enclosure

cc: Richard Carlbert, American Gilsonite, Bonanza  
Jackson Moffitt, MMS  
Lloyd Ferguson, BLM - Vernal  
James W. Smith, DOGM  
Sue Linner, DOGM  
Tom Portle, DOGM